Wireless Communications Interoperability

Future Trends and Directions

Environmental Factors

- Radio congestion will increase
- Spectrum will continue to be limited
- Infrastructure development will remain costly
- Federal funds will be limited

Industry Factors

- Competition is limited
- Engineers listen to other engineers more than end users—they add functionality because they can
- Designers often misunderstand or don’t inquire enough about user needs
- Commercial products set expectations

Future Ideas

- Fed govt and state/local govt should partner with commercial companies to provide primary data coverage; back up for voice
- State and local govts need more experienced engineers working for public safety—accurately assess needs; communicate better with designers and vendors (or require independent expert/university partner to help them)
- All levels of govt should mandate more training for end users—learn functionality; certification testing, e.g., state POSTs
- Fed govt should clear the 700 band and reserve for PS

Future Ideas (cont)

- Local reqmts must force a holistic approach to design—consider human engineering factors in addition to technical and field operations
- Fed govt should sponsor research into developing a modular approach to radio design—start with a “mainframe box” and add desirable features
- Software defined radios—future solution; we can’t wait for it
- Fed govt directs the development of open standards; states apply—will improve competitiveness

Future Ideas (cont)

- RFPs should include life cycle replacement; Fed govt should help by encouraging this in grants